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ABSTRACT

This study examined relations between mothers' and fathers' behavior and characteristics, and individual differences in masculine and feminine activities and interests of their early school-aged children. Subjects were 57 intact families with an eldest child aged 6 to 7 years for a total of 29 boys and 28 girls. Data collection involved four components: a joint interview with both parents; separate interviews with mothers and fathers; questionnaires completed by parents; and a 90-minute family observation. Analysis revealed evidence that father variables were more strongly related to children's activities and interests than mother variables. Certain parental characteristics and behaviors, such as engaging in shared activities with children, were differentially related to the activities and interests of boys and girls, that is, they were positively related for boys and negatively related for girls or vice versa. A subsample of the original subject group was studied 10 years later, when the children were 15 to 16 years old. Analysis of preliminary data from this follow-up study revealed that children's feminine activities and interests were correlated to mothers' characteristics and behaviors, and that fathers' behaviors and characteristics were correlated with children's masculine activities and interests. (MM)

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Family correlates of children's masculine and feminine activities and interests: Differential effects for boys and girls

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FAMILY CORRELATES OF CHILDREN'S MASCULINE AND FEMININE ACTIVITIES AND INTERESTS: DIFFERENTIAL EFFECTS FOR BOYS AND GIRLS

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This study examined relations between (a) mothers' and fathers' behavior and characteristics and (b) individual differences in the masculine and feminine activities and interests of a sample of white early school-aged boys and girls. Data were from interviews, questionnaires, and a family observation. There was some evidence that father variables were more strongly related to children's activities and interests than mother variables. Given parental behaviors and characteristics were differentially related to the activities and interests of boys and girls (e.g. positively related for boys and negatively related for girls). Thus, the same kind of family environment or experience may have different effects on boys and girls. Results are reported for associations between the family variables at age 6-7 years and children's activities and interests 10 years later.

The general research issue:

What are the family socialization processes associated with the development of children's masculine and feminine activities and interests?

Direction of effect issue:

Do parental characteristics and behavior influence children or do the activities and interests of children influence parents?

Background literature and rationale

Most attention in the gender socialization literature has been on parents' differential treatment of boys and girls, that is, whether and when parents treat boys and girls differently (Block, 1983; Fagot & Hagan, 1991; Hoffman, 1977; Lytton & Romney, 1991; Maccoby & Jacklin, 1974; Siegal, 1987). But this research generally does not indicate what effect the differential treatment might have. For example, if parents use physical punishment more with boys than girls, this does not indicate how such differential treatment may affect boys and girls. That is, it does not indicate the outcomes for boys and girls associated with different rates of physical punishment.

More evidence is needed on the links between particular socialization experiences of children and given aspects of children's gender-typed characteristics. For example, Fagot, Leinbach & O'Boyle (1992), reported on the relation between (a) mother behavior and attitudes and (b) the onset of gender labelling in children aged 24 to 36 months. Much of the research linking socialization and child outcomes has taken a relatively narrow focus, often based on the social learning principle that the particular child behavior might be encouraged or reinforced by parents. In contrast, we assumed the likely operation of complex and multidimensional influence processes within families. Hence, a wide range of family variables and experiences were measured and then related to children's masculine and feminine activities and interests.

For this study, children aged 6-7 years were chosen because to date more emphasis has been placed on the socialization of children below school age than for

activities have begun by the age of 6-7 and achievement and competition have emerged as significant issues for many parents. It is also a time when greater independence is expected or allowed of children, especially boys (Newson & Newson, 1976). The absence of data involving naturalistic family observation beyond the preschool years (Bronstein, 1988; Fagot & Leinbach, 1987) was also an important factor in the design of the study.

QUESTION 1. The issue was not whether parents treat boys and girls differently, but how the family experiences and parental behavior measured were related to the child's masculine and feminine activities and interests. In particular, interest focused on whether the same experiences and parental behaviors might be related to activities and interests differently for boys and girls. This would occur if, as suggested by Lytton and Romney (1991, p. 288) "even if parents do not differentiate reliably between sons and daughers . . . the same parental treatment may affect boys and girls differently."

Why might comparable experiences differentially affect boys and girls?

1. Children (boys and girls) may interpret and react differently to given experiences. Boys and girls may process information related to parental behavior differently. (see gender schema theory; Levy & Carter, 1989; Martin & Halverson, 1981). Jacklin (1989) argued that rather than differences in parental behavior being critical in gender socialization, it could be how boys and girls process information related to parental behavior.

2. Reciprocal role effects (Johnson, 1963, 1975) may also operate. For instance, girls may respond in a complementary and feminine way to the same masculine behavior in fathers that boys will model (Lamb, Owen, & Chase-Lansdale, 1979).

QUESTION 2. Are father characteristics and behavior more closely related to children's masculine and feminine activities and interests than mother characteristics and behavior? This possibility has received much attention in the literature, with some

QUESTION 3. Which parental characteristics and behavior are related to children's masculine and feminine activities and interests? A wide range of family variables were measured via questionnaire, interview and observation and related to children's activities and interests. This wide selection is consistent with other studies of family socialization factors related to children's social development (Hetherington, Cox, & Cox, 1982; Hinde & Tamplin, 1983; MacDonald & Parke, 1984). The variables studied were mainly chosen on the basis of theoretical or empirical suggestions about potential relevance to gender socialization.

Subjects

57 intact middle class white families with an eldest child aged 6-7 years in the second year of school. 29 boys and 28 girls.

Design and Procedures

Data were collected as part of a project on family relationships. The data collection involved four components: (i) A joint interview with mothers and fathers that focused on obtaining background information on the parents and their family, the activities and interests of the child, and the division of labor between mother and father in both household tasks and interactions with the child (e.g. kinds of play and help given the child); (ii) A separate interview conducted with mothers and fathers. This dealt with specific attitudes and beliefs of the parents about their role, responsibilities and influence, and about child development; (iii) Self completed questionnaires (most parents took between 30 and 45 minutes to complete these); and (iv) A one and a half-hour family observation. Both parts of the interview were conducted on the same evening in parents' homes. Separate researchers conducted the interviews and the observation. Interview and observational data relate to the eldest child (i.e., questions were asked only in relation to the eldest child).

Helps outdoors (e. g. mows lawn)

Goes to shops for parents

Takes messages to neighbors

Plays outdoor/physical games (e. g. riding bikes, on trampoline)

Play cognitive games (e. g. brain teasers)

Plays construction games (e g. lego)

Masculine competitive sports (e. g. soccer, cricket)

Physical/outdoor activities (e. g. camping, fishing)

Collecting things (e. g. football cards)

Feminine activities and interests (parent reports)

Helps set and clear table

Helps with cooking

Craft/painting

Fine motor games (e. g. fiddle sticks)

Amusement/fun games (e. g. cards)

Dolls

Feminine sports (e. g. netball)

Ballet/dance

Reading

Music/drama (organized).

These items were based on previous theory and research (Bloch, 1987; Block, 1978; Huston, 1983) . Parents (mothers and fathers were interviewed together and agreed on the answer) were asked a series of questions about their child's interests and activities. The responses were coded in the following way: 0= never/not mentioned; 1= rarely/hardly ever, 2= sometimes (but not on a regular basis) and 3= regularly/almost every day. Scores were summed across all items to form the scales.

The family correlates relate to separate measures obtained from and about mothers' and fathers' behavior and characteristics. They covered three domains of family variables. These are listed in Table 1.

The first domain, *parental models and values,* included measures of how "masculine" and "feminine" parents were in their own interpersonal style and in their household roles, as well as their childrearing values (e.g., the characteristics they thought it important to develop in children). It was expected that these kinds of parental variables might influence children's activities and interests either by (a) children modeling masculine or feminine characteristics (including activities and interests) in their parents, or (b) parental values leading them to encourage or reinforce masculine or feminine activities and interests in children.

The second domain, *parent-child involvement*, included characteristics of the parent-child relationship (e.g., how much time the parent spent with the child, and what kinds of activities they engaged in together). The expectation from this domain was first that parents might have greater influence on their children's activities and interests if they spend more time with the child and undertake more caregiving with the child (assumed to indicate a closer parent-child relationship). Second, it was expected that mothers (fathers) might have more influence on the child's feminine (masculine) activities and interests if they develop a relationship characterized by warmth or dependence than a relationship where the child is independent of the parent or disobedient or rejecting. Third, it was expected that if parents engaged in more masculine (feminine) activities with the child, this would be associated with the child having more masculine (feminine) activities and interests.

The third domain contained those variables relating to specific *parent-child interactions*, taken mainly from the family observation. It included measures of how much the parent interacted with the child, the kinds of interactions the parents initiated with the child and parental reactions to children's gender-appropriate social behavior. The latter were treated as indices of the extent to which parents might reward or punish such behavior. It was expected that the extent to which parents encouraged gender-

masculine and feminine activities and interests. It was also expected that if mothers (fathers) were more positive to the child, interacted with them in warm and affectionate ways and initiated more activities with the child (such as playing with them), the child might be more feminine (masculine) in activities and interests.

The specific variables in each domain were as follows.

Domain 1. Parental models and values: There were three groups of variables in this domain

(i) Sex-role personality. This was measured using Forms A and B combined of the Antill, Cunningham, Russell and Thompson (1981) Personal Description Questionnaire (PDQ), a sex-role self-description scale. Four subscales (each with 20 items) were computed: feminine positive (α: Fa: .86; Mo: .88) and negative (α: Fa: .80; Mo: .81), and masculine positive (α: Fa: .84; Mo: .84) and negative (α: Fa: .89; Mo: .88).

(ii) Child-rearing values. Parents were presented with a list of 20 child behaviors/outcomes and were asked to rate the importance of each characteristic for their child. Ratings were made on a four-point scale: (1) Not important at all; (2) Somewhat important; (3) Fairly important; and (4) Extremely important. The 20 characteristics were based on those used in Russell and Russell (1982), and findings from a pilot study. Four variables were extracted from these items. (1) *Feminine* gender-typed values: the sum of three items, namely express love/affection, express feelings, sensitivity to others (α: Fa: .57; Mo: .55); (2) *Masculine* gender-typed: the sum of five items, namely trying hard, independence, work things out/solve problems, curious about how things work, being good at sport (α : Fa: .67; Mo: .55); (3) *Standards of Behavior*: sum of four itmes, namely having good morals, being well behaved, being well mannered, and having self-control (α: Fa: .67; Mo: .75); (4) *Act like a boy/girl.* Here parents rated how important it was for their child to act like a boy if their child was a son, or like a girl if their child was a daughter. In the analyses, this variable was scored according to whether a feminine-typed characteristic or a masculine-typed characteristic was being examined. For example, for masculine-typed characteristics, the scoring for

the parent did not want their daughter to act like a girl. The item was then labelled "act like a boy". This means that a high score on this variable for boys indicates the parent wanted their son to "act like a boy", but for parents of girls, a high score meant the parent did not think it was important their daughter "act like a girl". This was used as a rough way of equating the parents of boys and girls in terms of the kinds of qualities they seemed to value in their child (in this case "boy-like" qualities).

(iii) Division of labor. The variables here related to parental division of labor in household tasks, with tasks classified according to other research (e.g. Antill & Cotton, 1988). Parents were asked how frequently (1, never; 2, seldom; 3, sometimes; 4, often; 5, very frequently/always) they each performed various household tasks. These were organized into two variables by summing the items: *Masculine Housework* (3 items): lawns and garden maintenance, car and house repairs, responsibility for family finances (α : Fa: .64; Mo: .45); *Feminine Housework* (3 items): prepares meals, washes and irons, cleans the house (α: Fa: .65; Mo: .48).

Domain 2. Parent-child involvement: There were four groups of variables dealing with the nature of the parent-child relationship, and the kind and extent of involvement the parent had with the child.

(i) Time together. Parents indicated the number of hours per week they were available to the child when the child was awake. This was a single variable.

(ii) Child need tasks. This was a single variables dealing with the extent to which the parent was responsible for performing tasks associated with a child's day-to-day needs. The mother and father indicated on a 5 point scale the extent to which they were responsible for each of the following; bedtime, child health needs, communication with school, daily school needs, take to extra classes, the child's dress. The variable involved summing these items (α : Fa: .51; Mo: .55).

(iii) Relationship with the child. These data concern how the parent perceived his/her relationship with the child and were obtained from Schaeffer's (1978) Parent-Child Relationship (PCR) Form (Schaeffer, Edgerton & Finkelstein, 1979). Parents rated their relationship with their child in terms of 69 items. Ratings range from 1 = not

subscales. In an attempt to reduce the large number of variables derived from Schaeffer's PCR Form, principal component factor analyses (with varimax rotation) of the 23 subscales were conducted separately for mothers and fathers. Five-factor solutions were derived for both mothers and fathers (although there were some differences between mothers and fathers for the items that loaded on each scale). Items that loaded above .40 were combined to form five relationship variables: (i) *Warm/involved* (Father: (9 sub-scales $\propto$ = .86, % variance = 23; Mother: (6), $\propto$ = .77, % variance = 10); *Helpful/compliant* (Father: (3), $\propto$ = .79, % variance = 7; Mother: (4), $\propto$ = .75, % variance = 20); *Independent* (Father: (3), $\propto$ = .75, % variance = 12; Mother: (4), $\propto$ = .70, % variance = 8); *Disobedient/resistant* (Father: (5), $\propto$ = .88, % variance = 7; Mother: (6), $\propto$ = .89, % variance = 25); *Dominant/Rejecting* (Father: (2), $\propto$ = .59, % variance = 22; Mother: (2), $\propto$ = .60, % variance = 5)

(iii) Gender-typed shared activities. Parents were asked to rate how often (using a 5-point scale: 'Never', 'less than once a month', 'once or twice a month', 'two-three times a week', to 'Almost Every Day') they participated in various activities with their child. Items were grouped into three variables, the first being more masculine gender-typed, the second being achievement orientated and the third being more feminine gender-typed in orientation: (i) *Outdoor/physical* (4 items): rough and tumble play, ball games, take to/watch sport, help fix things around the house/mowing lawn/gardening ($\propto$: Fa: .59; Mo: .53); (ii) *School work/cognitive* (3 items): help with school work, go over school work, play educational games ($\propto$: Fa: .45; Mo: .47); (iii) *Indoor creative/amusement* (5 items): listen to child read, read to child, play with toys, play amusement games, help with drawing/craft ($\propto$: Fa: .61; Mo: .57). Coefficient alpha levels are moderately high for these scales, as would be expected given the small numbers of items on each.

Domain 3. Parent-child interactions: There were five groups of variables dealing with parental interactions with the child, all taken from the observation. They were;

(i) Overall interaction rate. This was a single variable concerned the extent to which the parent initiated interactions with the child during the observation. It involved

equate for differences in the length of observation. It should be noted that this procedure meant the addition of codes which recorded interactions of different durations (e.g. a brief demand made of the child, versus parent and child playing a game which may last the whole duration of the 5 min coding period). For this reason, the variable should be treated as an approximation of the amount of parent-initiated interaction.

(ii) Overall affective reactions. This group of variables related to the extent to which the parent reacted in a positive neutral or negative way to the child during the observation. Separate variables respectively measured the proportion of *positive*, *neutral* and *negative* reactions of the parent, averaged over all child initiated personal-social behaviors (see below) during the observation (each time a child was scored for interacting with a parent, a parental reaction was also scored).

(iii) Affective/social interactions. Four variables measuring parent behavior were selected or fomed to be indicative of a warm/affectionate style of relating to the child. In some cases the variable was a single code from the observation schedule, in other cases it was the sum of more than one code. The four variables for affective/social interactions involved the extent to which parents initiated the following kinds of interactions; (a) affection (the sum of codes dealing with concern, empathy etc, and physical affection), (b) warmth (warmth/playfulness, such as joking, during interactions), (c) information sharing (the sum of codes dealing with requesting from and providing information to the child), and (d) shared activities (participating in a game or activity with the child). The data analysed were the proportion of parent-initiated interactions of each type.

(iv) Controlling/demanding interactions. Three variables were formed to be indicative of a controlling/demanding style of relating to the child. Again they involved the proportionate use of each kind of interaction. The variables were: (a) teach/direct (the sum of codes dealing with teaching or correcting the child's behavior, and commands to the child), (b) consult e.g. before making a decision, and (c) teach/explain e.g., explaining how to do something.

(v) Reactions to gender-typed behaviors. These variables were included to

matter-of-fact (neutral) way to gender appropriate behavior in the child. There were separate variables for the proportion of positive, neutral and negative reactions by parents to five child personal-social behavior variables. The child personal-social behaviors were taken from the behavior of children recorded during the observation, and were based on previous findings (see Huston, 1983, Figure 1, p. 394) and descriptions (e.g. Johnson, 1975) of gender-typed personal-social behaviors. There were three masculine and two feminine personal-social behavior variables.

The three masculine variables were: (i) "aggression/misbehavior" (defined by the single observation code recording this type of child behavior), (iii) "assertive/dominant" (the sum of the codes dealing with child displaying competitive behavior, dominant behavior (e.g. arguing with parent about a decision), and making decisions about what to do without parental advice), and (iii) "independence/competence in activities" (the sum of codes dealing with demonstrating autonomous achievement, showing parents completed tasks, and working or playing without help).

The two feminine variables were: (i) "dependence/seeks support "(the sum of codes dealing with seeking parental agreement for their behavior, requesting information from the parent, and seeking parental help when it is not needed), and (ii) "affiliative/responsible" (the sum of codes dealing with the showing of concern or empathy, assisting in caretaking tasks, showing physical affection, providing information to parents, participating in games or activities with parents, showing warmth or playfulness in interactions, and being responsible for their own care (e.g. bathing themselves).

With three kinds of parental reactions and five child personal-social variables, there was a total of 15 variables examining parental reactions to child gender-typed behaviors.

Observational Procedures. Families were observed in their homes one to two weeks after the interview. The observation was conducted during the late afternoon and early evening, beginning approximately half an hour before the father arrived home, and for another 1 1/2 hours after. As would be expected with the demands of family life, a

period. Data presented here come from the period when both parents were at home. It includes the evening meal and a period where the family played a ring-toss game (see Russell & Russell, 1987 for complete details).

The behavior of the two parents and their eldest child was coded, with the child being the main focus, in the sense that when no interaction was occurring it was the child's behavior that was recorded. This meant that any behavior recorded for parents was interaction vis-a-vis the child. In contrast, some child behaviors were interactive while others were not, e.g., child setting the table for dinner, doing school homework, reading, etc. Behavior was coded in five minute blocks separated by two minute breaks. During these breaks, a narrative account was completed on what had occurred, and these were later subjected to content analyses.

The observation schedule contained twenty-three content codes dealing with specific behaviors, initiated either by parents or children. The schedule and the observation procedure has been described in Russell and Russell (1987). Whenever a behavior was checked, the following were recorded: (a) who performed the behavior (mother, father or target child); and (b) the affective reactions of mother and father to child behavior, or the reaction of the child if it was a parent behavior. Reactions were coded as follows: positive -- verbal or physical approval or support; negative -- verbal or physical demonstration of dislike or disapproval; neutral -- when both the content and expression were matter-of-fact in affect; and not involved --when the person was present but not directly involved in the interaction. It was also noted whether or not a parent was absent when an interaction or behavior occurred. Reliability data in terms of Cohen's kappas for the individual codes and for reactions to behavior were generally above about .75 (mean kappa of .85) and have been reported in Russell and Russell (1987).

Results

Boys ($X = 17.0$, $sd = 4.0$) had more masculine activities and interests than girls ($X = 11.7$, $sd = 3.6$)($p < .001$). Girls ($X = 12.1$, $sd = 3.4$) had more feminine activities and

The data were analysed with correlations and multiple regressions with an interaction term for child sex. In each of the regression analyses involving interactions, main effects (results for boys and girls together) were entered first, followed by interactions of each variable with child sex.

As a first step, variables were selected for further examination. This was done by conducting regression analyses on each separate group of variables (e.g. all sex-role personality variables), using both main effects and interactions with child sex. Variables that were significant ($p < .025$) when entered last, either as a main effect or as an interaction, were selected for further analysis. These further analyses were conducted for variables in each Domain.

Variables were analysed for each Domain separately (rather than all together) because of the relatively small number of subjects in relation to the number of variables. In these analyses, the main effects were entered as a block and then the interactions with child sex as a block. Interest focused on the increment in R^2 associated with the main effects and interactions. This provides a general indication of the types of variables associated with children's masculine and feminine activities and interests, and whether it is main or interaction effects that are important. These results are summarized in Tables 2 and 3.

For children's masculine activities and interests (Table 2), it can be seen that for fathers, all significant increments in R^2 were for variables interacting with child sex. An example of such an interaction is that for fathers of boys the association of masculine childrearing values with masculine activities and interests was positive, while for fathers of girls, the association was negative. For mothers, there were both significant main and interaction effects.

For children's feminine activities and interests (Table 3), it can be seen that there were fewer significant increments in R^2. Both mothers' and fathers' models and values variables were associated with children's feminine activities and interests as main

sex. In this case, the associations between the father-child interaction variables and feminine activities and interests were generally negative for fathers of boys and positive for fathers of girls.

Summary: Differential effects for boys and girls occurred mainly for masculine activities and interests and mainly for father variables.

Specific results

From the results for the individual variables in the regression analyses (beta weights and increments in R^2) the following was apparent. Note that effects that arose from interactions are in italics.

Boys with more masculine activities and interests

had fathers who

placed more value on masculine qualities in their child (r= .30)

engaged in more feminine housework (r= .27)

engaged in more outdoor/physical activities with the child (r=. 39)

had a more helpful/compliant relationship with the child (r= .42)

engaged in fewer shared activities with the child during the family observation. (r= .-.28)

had mothers who

placed less value on feminine qualities in their child (r= -.19)

wanted their child to "act like a boy" (r= .33)

engaged in more feminine housework (r= .43)

engaged in fewer teach/explain interactions with the child during the family observation.(r= -.37)

Girls with more masculine activities and interests

had fathers who

placed less value on masculine qualities in their child (r= -.42)

engaged in more feminine housework (r= .43)

engaged in more outdoor/physical activities with the child (r= .22)

had a less helpful/compliant relationship with the child (r= -.28)

engaged in more shared activities with the child during the family observation (r= .29).

had mothers who

placed less value on feminine qualities in their child (r= -.13)

wanted their child to "act like a boy" (r= .44)

engaged in less feminine housework (r= -.26)

engaged in more teach/explain interactions with the child during the family observation (r= .23)

Boys with more feminine activities and interests

had fathers who

had a sex-role personality low on masculine positive (r= - .27)

consulted the child more during the family observation (r= .43)

were less neutral in reactions to the child being dominant/assertive during the family observation (r= -.53)

engaged in fewer shared activities with the child during the family observation (r= -.31)

initiated less affection to the child during the family observation (r= -.05)

were less positive to the child being dependent during the family observation (r= -.28)

placed less value on feminine qualities in their child (r= -.49)

placed less value on good standards of behavior in their child (r= -.42).

Girls with more feminine activities and interests

had fathers who

had a sex-role personality low on masculine positive (r= -.36)

consulted the child more during the family observation (r= .22)

engaged in more shared activities with the child during the family observation (r= .42)

initiated more affection to the child during the family observation (r= .24)

were more positive to the child being dependent during the family observation (r= .43).

had mothers who

placed less value on feminine qualities in their child (r= -.11)

Discussion/conclusions

1. In general, the family variables were more strongly associated with children's masculine activities and interests than feminine activities and interests (as shown by the increments in R^2 in Tables 2 & 3).

2. Different kinds of mother and father variables were associated with masculine and feminine activities and interests in children. It seems possible that different processes and factors in mothers and fathers may be important in gender socialization.

3. It was not the case that fathers with a masculine personality had masculine children or mothers with a feminine personaltiy had feminine children. However, if fathers had a

less feminine activities and interests. That is, in this case it seemed that a masculine personality in fathers was not necessarily associated with masculine activities and interests in children, but was correlated with the child having fewer feminine activities and interests.

4. It was not the case that positive parental reactions to gender appropriate behaviors were good predictors of how masculine or feminine the child was in activities and interests. An exception was that girls with more feminine acitivities and interests had fathers who were positive in reactions to their being dependent.

5. It seems there may be a variety of processes involved in the child's development of activities and interests.

Parental values about masculine and feminine behavior or qualities generally seem to be important, although the data do not indicate precisely how these values are expressed or communicated to children.

The kind of parental involvement with the child might be important. For instance, if fathers were involved in more outdoor/physical activities with the child, then the child had more masculine activities and interests. Of course, fathers could be more involved in these activities because the child has masculine interests.

The kind of model the parent provides may be important. For example, a father who engages in outdoor/physical activities may model masculine qualities for their child. Here, it is noteworthy that participation in feminine housework by fathers is related to children's masculine activities and interests. It is possible that greater participation by fathers in housework enhances their status as a masculine model for a child of this age. It might also suggest these fathers are somewhat more involved with the family.

Direct parental encouragement of each specific masculine or feminine activity is likely to be important (Lytton & Romney, 1991). However, a point from the present data is that there were clearly correlates of children's masculine and feminine activities

mechanisms or processes beyond direct encouragement may be important in gender socialization.

While there may be few differences in parental treatment of boys and girls (Lytton & Romney, 1991), it must be recognised that boys may be treated differently from one family to another, and girls may be treated differently from one family to another, with these differences within the sexes being important for the extent of gender typing displayed by the child.

Nevertheless, as Lytton and Romney (1991) show, there are few clear trends in socialization differences between boys and girls that might explain gender differences in children. Equally, our data suggest that there are probably few clear differences in family correlates within samples of boys and girls that might explain the extent to which boys and girls have masculine and feminine activities and interests.

6. Overall, there was probably more evidence of father variables being associated with children's masculine and feminine activities and interests than mother variables. This was suggested by the amount of total variance accounted for in the regression equations for mothers and fathers, as indicated by the increments in R^2 for mothers and fathers in Tables 2 and 3. The apparent stronger association for father variables is due in large part to the substantial tendency for father variables to interact with child sex.

7. Therefore, a main finding was that for father variables (especially) the family correlates of children's masculine and feminine activities and interests differed for boys and girls.

8. Explanation for differential results for boys and girls:

One possibility is that boys and girls respond to, react differently to, interpret differently, or select from in different ways, the same characteristics or behavior in fathers. For example, a helpful and compliant relationship with father may form part of a process whereby sons identify with fathers and develop more masculine activities and

father they were less masculine in their activities and interests. This suggests that the helpful/compliant aspect of a father-daughter relationship may operate in a complementary fashion to lead daughters away from masculine activities and interests.

A second possibility is that parents, and especially fathers, react differently to a son or a daughter who has masculine or feminine activities and interests . For example, if a son has masculine interests, a father may value masculine qualities, but if a daughter has masculine interests, then a father may act to counter this somewhat by holding less masculine values for childrearing outcomes (e.g. not placing value on the daughter being independent or good at problem solving-- possibly in a sense not wanting to encourage the daughter into further masculine characteristics). If a son has feminine activities and interests, a father may be less affectionate, while if a daughter has feminine activities and interests, a father may be more affectionate, reacting possibly to perceptions of the appropriateness of the child's interests and behavior. Major aspects of the data presented here could be interpreted in terms of the kinds of interactions and relationships that parents develop with children as a function of the child's masculine or feminine interests. That is, as parent responses to masculine or feminine behavior in their child.

The correlates identified here raise many issues and possibilities about possible parental influences on children, child influences on parents, and the processes associated with gender socialization and family relationships. The results have implications for possible socialization processes rather than definitely identifying such processes.

The presence of rather scattered correlates of children's masculine and feminine activities and interests is consistent with the findings of Weisner and Wilson-Mitchell (1990) who investigated family correlates of sex typing in six-year-olds. Their conclusion is also supported by the present data; namely that it is likely that gender socialization is related to a variety of values and practices, sustained over time and combined in different ways by different families "rather than any particular belief or

practice at a particular developmental period, or considered apart from the overall family context" (p. 1928).

10 year follow-up

A subsample of the original families was again studied about 10 years later, with the child now aged 15-16 years. Some preliminary data are available from some of these families (families of 13 boys and 8 girls). During the follow-up, the children self-reported their activities and interests over 6 items of masculine activities and interests (e.g., build or fix things, play computer games, go hiking or camping) and 6 items of feminine activities and interests. (e. g., cooking, dance or ballet, sewing). Some differential effects for boys and girls were suggested in the correlations between family correlates measured at age 6-7 years and activities and interests 10 years later. However, due to the small numbers in the samples for boys and girls, these findings cannot be treated as reliable. For the purposes of this presentation, therefore, data from the whole sample of 21 families are given, thus dealing only with main effects.

Correlations have been calculated between the variables given in Table 1 (collected when the child was 6-7 years of age) and the child's self-reported masculine and feminine activities and interests about 10 years later. Correlations with $p < .05$ indicate that:

adolescents with more masculine activities and interests, at age 6-7 years had

fathers who placed more value on good standards of behavior (r= .45)

fathers who were less often involved in assisting in caretaking tasks with their child (r= -.57)

mothers who more often initiated teaching/directing interactions to the child during the family observation (r= .48)

adolescents with more feminine activities and interests, at age 6-7 years had

mothers who were more positive in reactions to the child's behavior during the family observation (r= .49)

mothers who less often initiated teaching/directing interactions during the family observation (r= -.48).

Clearly, it would be difficult to take each of these mother and father behaviors in a narrow way as being somehow directly causal in the development of the child's activities and interests. However, these preliminary data are interesting. First, the significant correlates of feminine activities and interests are from mothers only and father correlates are only involved with masculine activities and interests. Fathers who were less involved in caretaking the child at age 6-7 years and who valued such things as children having good morals and being well-behaved, had children with more masculine activities and interests in adolescence. These father qualities could be construed as consistent with a traditional masculine role and values.

The mother characteristics associated with adolescent's feminine activities and interests could also be construed as containing elements of more feminine qualities (e.g. responding positively to the child, being affectionate, and being less directing about child behavior).

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TABLE 1

SUMMARY OF INDEPENDENT VARIABLES

DOMAIN	VARIABLE GROUP	VARIABLE
1. PARENTAL MODELS AND VALUES	sex-role personality	feminine positive feminine negative masculine positive masculine negative
	child-rearing values	feminine values masculine values standards of behavior act like a boy/girl
	division of labor	feminine housework masculine housework
2. PARENT-CHILD INVOLVEMENT	time together	time together
	child need tasks	child need tasks
	relationship with child	warm/involved disobedient/resistant independent helpful/compliant dominant/rejecting
	shared activities	outdoor/physical school/cognitive creative/amusement
3. PARENT-CHILD INTERACTIONS	overall interaction rate	total number of interactions
	overall affective reactions	proportion positive reactions proportion neutral reactions proportion negative reactions
	affective/social interactions	affection warmth information exchange shared activities
	controlling/demanding interactions	teach/direct consult teach/explain
	reactions to gender behaviors	child aggression/misbehavior child independence/competence child dominance/assertiveness child affiliative/responsible child dependence/seeks support (proportion of positive, neutral and negative reactions)

Table 2
Summary of regression analyses for children's masculine activities and interests

	Increment in R^2
Fathers	
Father models and values variables	
Main effects	.081
Interaction with child sex	.085*
Father-child involvement	
Main effects	.102
Interaction with child sex	.109*
Father-child interactions	
Main effects	.000
Interaction with child sex	.052*
Mothers	
Mother models and values variables	
Main effects	.172**
Interaction with child sex	.043*
Mother-child involvement	
Main effects	(nil)
Interaction with child sex	(nil)
Mother-child interactions	
Main effects	.001
Interaction with child sex	.094*

Note Nil means no variables were selected from the preliminary analyses as significant.
* $p < .05$ ** $p < .01$

Table 3
Summary of regression analyses for children's feminine activities and interests

Fathers	
Father models and values variables	
Main effects	.082*
Interaction with child sex	(nil)
Father-child involvement	
Main effects	(nil)
Interaction with child sex	(nil)
Father-child interactions	
Main effects	.178
Interaction with child sex	.277***
Mothers	
Mother models and values variables	
Main effects	.144**
Interaction with child sex	(nil)
Mother-child involvement	
Main effects	(nil)
Interaction with child sex	(nil)
Mother-child interactions	
Main effects	.017
Interaction with child sex	.078

Note Nil means no variables were selected from the preliminary analyses as significant.
* $p < .05$ ** $p < .01$